

Attachment F – Fact Sheet

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ATTACHMENT F – FACT SHEET

As described in Section II of Order No. R9-2005-0139, this Fact Sheet includes the specific legal requirements and detailed technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

Administrative information for the IBCS is summarized in *Table 1. Facility Information.*

Table 1. Facility Information.

WDID	9 00001359
Discharger	City of Escondido
Name of Facility	City of Escondido Industrial Brine Collection System
Facility Address	Terminus at: 1521 S. Hale Avenue Escondido, CA 92029 San Diego County
Facility Contact, Title and Phone	John Burcham (Plant Superintendent), (760) 839-6273
Authorized Person to Sign and Submit Reports	Patrick A. Thomas (Director of Public Works), (760) 839-4651
Mailing Address	201 N. Broadway, Escondido, CA 92025
Billing Address	201 N. Broadway, Escondido, CA 92025
Type of Facility	Industrial Brine Collection System
Threat to Water Quality	2
Complexity	A
Pretreatment Program	NA
Reclamation Requirements	NA
Facility Permitted Flow	1.5 million gallons per day
Facility Design Flow	1.5 million gallons per day
Watershed	Pacific Ocean Shoreline, Escondido Creek
Receiving Water	Pacific Ocean (via San Elijo Ocean Outfall)
Receiving Water Type	Surface Water

The City of Escondido (hereinafter Discharger) is the owner and operator of the Escondido Industrial Brine Collection System (hereinafter IBCS), a collection system for industrial brine wastewaters.

The Discharger proposes to discharge up to 1.5 million gallons per day (mgd) of dechlorinated industrial brine wastewater from the IBCS to the Pacific Ocean, a water of the United States, via the Escondido Land Outfall and the San Elijo Ocean Outfall.

The Discharger filed a report of waste discharge and submitted an application for Waste Discharge Requirements (WDR) and National Pollutant Discharge Elimination System (NPDES) permit on October 25, 2004. A site visit was conducted on March 29, 2005 to observe operations and collect additional data to develop Order limitations and conditions. A revised NPDES permit application was submitted on July 21, 2005. A site visit of the

Palomar Energy Project was conducted on July 27, 2005 to collect additional information to develop Order limitations and monitoring conditions established in the tentative Order.

II. FACILITY DESCRIPTION

In order to minimize the discharge of salts to the sanitary sewer system, the City of Escondido has constructed an Industrial Brine Collection System (IBCS). The City of Escondido proposes to allow qualified City-regulated industrial dischargers to discharge certain industrial brine wastewaters into the IBCS. Brine wastes allowed into the IBCS would include:

1. Brine wastewater or blowdown from evaporative cooling processes, and
2. Brine from reverse osmosis, water softener, and other types of water treatment processes.

These industrial processes concentrate dissolved minerals that naturally exist in potable water and recycled water supplies, resulting in elevated concentrations of total dissolved solids (TDS) in the discharge. Normal municipal wastewater treatment processes do not remove TDS, and increased concentrations of TDS can interfere with secondary biological wastewater treatment processes and adversely affect the usability of recycled water. To avoid adverse salinity impacts at the City's Hale Avenue Resource Recovery Facility (HARRF), brine industrial wastewater discharged into the IBCS will not be directed to HARRF preliminary, primary, or secondary treatment facilities. The brine wastewater discharged into the IBCS will be dechlorinated and discharged into an equalization basin that feeds directly into the City's Escondido Land Outfall (ELO) and is then directed to the San Elijo Ocean Outfall (SEOO).

The City of Escondido proposes to construct the IBCS in two phases. Phase I of the IBCS is a 12-inch diameter pressure pipeline that will receive wastewater discharges from the *Palomar Energy Project* (PEP). The PEP is a 550-megawatt power plant being constructed by Palomar Energy LLC, an entity of Sempra Energy. The PEP is located at a site approximately 0.9 miles north-northwest of HARRF. The PEP will be a natural gas combined cycle power plant. The PEP intends to begin power generating testing operations in October 2005 using approximately 3.0 mgd to 5.3 mgd of HARRF recycled water for power plant operations.

The projected schedule for PEP power generating testing operations will coincide with the Discharger's proposed start-up of the IBCS, Phase I, system in October 2005. Commercial power generation operations at PEP are expected to within the month. Phase I of the IBCS would receive an average flow of 1.0 mgd and a maximum flow of 1.4 mgd of cooling tower blowdown, evaporative cooler blowdown, heat recovery steam generator blowdown, demineralization brine, and low volume waste streams from various floor drains throughout the facility from PEP.

Phase II of the IBCS will include brine pipelines that receive industrial brine wastewater flow of approximately 0.09 mgd of cooling tower blowdown and brine wastewaters from the following industrial facilities:

1. Boncor (0.02 mgd of water softening and regeneration wastewater),
2. Culligan (0.017 mgd of water softening and regeneration wastewater), and
3. Iceoplex (0.05 mgd of cooling tower blowdown, heat recovery generator blowdown, and demineralization brine wastewater).

Phase II of the IBCS will include a connection to the existing 49-megawatt cogeneration Iceoplex facility. HARRF recycled water will provide cooling water for the Iceoplex cooling towers and cooling tower blowdown.

The Discharger is currently working on the Phase II infrastructure. The Discharger expects the IBCS, Phase II, to be completed within 5 years.

The majority of recycled water flows directed to the power plants (both Iceoplex and PEP) will be evaporated. Approximately 26% of the recycled water delivered to the Iceoplex and the PEP will be discharged as waste brine to the IBCS. The waste brine will contain the same mass of salt that would have been discharged to the SEOO if the power plant was not using and evaporating the recycled water. This mass of salt discharged to the SEOO will be slightly concentrated because of the reduced flow. Under Phase I of the IBCS, average daily City of Escondido discharges to the ELO and SEOO system (IBCS and HARRF effluent) would be reduced by approximately 2.7 mgd due to the evaporation that occurs at PEP.

Operation of the IBCS and the PEP will reduce flows discharged to the SEOO by the City of Escondido. The flow reduction is expected to reduce the potential for the City's intermittent wet-weather stream discharges, which are regulated by Regional Water Board Order No. R9-2003-0394.

With the implementation of the proposed 1.5 mgd IBCS brine discharge, the combined SEOO discharge to the Pacific Ocean will contain the following three effluent streams:

1. HARRF secondary and tertiary treated municipal wastewater currently regulated by Regional Water Board Order No. R9-2005-0101 (NPDES No. CA0107981),
2. Secondary treated municipal wastewater from the San Elijo Joint Powers Authority (SEJPA) San Elijo Water Reclamation Facility (SEWRF), currently regulated by Regional Water Board Order No. 99-71 (CA0107999), and
3. Dechlorinated brine industrial wastewater from the City of Escondido's IBCS.

Attachment C to Order No. R9-2005-0139 is a line diagram of the three effluent streams that will contribute to the total ELO discharge.

The ELO has a hydraulic capacity of 27.6 mgd. The SEOO has a hydraulic capacity of 25.5 mgd. Operating capacity of SEOO is limited by the inshore 30-inch diameter section of SEOO that has a design pressure limit of 50 feet or 21.7 pounds per square inch (psi). To insure safe operating pressures within this inshore 30-inch diameter portion of SEOO, total flows through the outfall are limited to 24.3 mgd through a flow-regulating valve on ELO. A pressure transmitter in the 30-inch diameter portion of SEOO actuates the ELO valve. The City of Escondido leases 79 percent of the 24.3 mgd SEOO capacity (19.2 mgd).

Currently, SEJPA is permitted to discharge up to 5.25 mgd of treated municipal wastewater to SEOO. The City of Escondido is currently permitted to discharge up to 16.5 mgd of treated municipal wastewater to SEOO. The City of Escondido has submitted an application to increase the allowable average daily HARRF discharge flow to SEOO from 16.5 mgd to 18.0 mgd. The increased flow rate for HARRF includes the additional flow volume from the IBCS (1.5 mgd).

The IBCS, Phase I, flows will be discharged to ELO after dechlorination. During the first year of operation of the IBCS, the IBCS will discharge to the ELO continuously. By mid-2006 the Discharger expects to have a two million gallon flow equalization basin for the IBCS discharge. Once the flow equalization basin is in operation, the City will be able to control the time and rate of discharges from the IBCS to the ELO.

The total HARRF flows (i.e., the secondary treated discharges and the IBCS) will be maintained at 18 mgd. The HARRF flows will be controlled through various means, including:

1. Storage at Pump Station No. 77.
2. In-plant process storage.
3. The existing 2 million gallon equalization storage basin at HARRF (for secondary treated wastewater).

After completion of the 2 million gallon brine equalization basin in mid-2006, IBCS flows will be discharged to the equalization basin prior to discharge to ELO.

A. Description of Wastewater Treatment or Controls

The City plans to regulate industries discharging brine wastewaters to the IBCS through industrial discharge permits issued by the City's existing USEPA-approved industrial discharger pretreatment program. Through the City's pretreatment program, the City has authority to establish effluent discharge standards for each regulated industry, issue industrial discharger permits, and enforce the established industrial discharge standards.

Prior to discharge to the ELO, brine industrial wastewaters collected in the IBCS will be dechlorinated at the HARRF. Dechlorination will occur prior to combining with the

HARRF effluent. Following dechlorination, the effluent would be discharged to the ELO, then the SEOO.

The use of the HARRF recycled water for the evaporative cooling towers will reduce the City of Escondido's discharges (HARRF and IBCS) to the ELO and the SEOO. The combined total flow from the HARRF and IBCS shall not exceed 18.0 mgd.

B. Discharge Points and Receiving Waters

The Discharger proposes to discharge up to 1.5 mgd of brine wastewater, blowdown from evaporative cooling processes, and brine from reverse osmosis, water softener, and other types of water treatment processes. The combined treated wastewater is discharged to the Pacific Ocean through the SEOO. The SEOO is located at 33° 00' 21" North latitude and 117° 18' 09" West longitude.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

The largest industrial user of the IBCS, the PEP, is not yet operating. Therefore, water quality monitoring data for IBCS, Phase I, are not available. Estimates of water quality concentrations in the IBCS discharge have been developed by the City of Escondido based on the following:

1. The type of facility contributing to IBCS, Phase I, flows.
2. Known qualities of wastewater from existing industries (currently discharging to the City of Escondido's sanitary sewer system) that will contribute to IBCS, Phase II, flows.

Because the Phase I flow makes up the majority of the Phase I and Phase II total flow (1.5 mgd and 0.1 mgd respectively), effluent water quality for physical and chemical constituents is not expected to differ greatly from Phase I to Phase II. The expected IBCS effluent quality for physical and chemical constituents is summarized in *Table 2*.

Projected Physical and Chemical Concentrations.

Table 2. Projected Physical and Chemical Concentrations.

Parameter	Unit	Projected Maximum Daily Value	Projected Average Daily Value
Flow	mgd	1.5	1.1
Temperature (winter)	°C	40	31
Temperature (summer)	°C	40	35
pH	Units	6 - 9	6 - 9
Biochemical Oxygen Demand (BOD)	mg/L	<45	<30
Chemical Oxygen Demand (COD)	mg/L	<90	<50
Total Suspended Solids (TSS)	mg/L	<60	<45
Ammonia (as N)	mg/L	<80	<25
Total Chlorine Residual	mg/L	0	0

Parameter	Unit	Projected Maximum Daily Value	Projected Average Daily Value
Grease and Oil	mg/L	<5	<5

The combined flow from IBCS, Phase I and Phase II, is projected to cause TDS concentrations that are approximately five times (a ratio of 5 to 1) higher than the HARRF recycled water would be if the industrial uses were not discharging the IBCS. The expected IBCS effluent quality for TDS is summarized in *Table 3. Projected TDS Concentrations*.

Table 3. Projected TDS Concentrations.

IBCS Phase	Facility Name	Projected Average Flow	Projected TDS Concentration (mg/L)
Phase I	Palomar Energy Plant (PEP)	1.0	4,250
Phase II	Boncor	0.022	17,000
	Culligan	0.019	15,000
	Iceoplex	0.050	4,500
Combined Phase I and Phase II IBCS Discharge		1.5	4,400
HARRF Recycled Water TDS Concentration		--	900

Effluent quality of metals and cyanide are not expected to differ from Phase I to Phase II. Water quality concentration estimates for metals and cyanide are expected to increase from the HARRF recycled water by five times. The expected IBCS effluent quality for metals and cyanide are summarized in *Table 4. Projected Metals and Cyanide Concentrations*.

Table 4. Projected Metals and Cyanide Concentrations.

Parameter	2003 Maximum Detected Value in HARRF Secondary Effluent (µg/L)	2003 Mean Value for HARRF Secondary Effluent (µg/L)	Projected Maximum Concentration in IBCS Brine Effluent (µg/L) ¹	Projected Mean Concentration in IBCS Brine Effluent (µg/L)
Antimony	<5	<5	<25	<25
Arsenic	1.38	<3	<50	<15
Beryllium	0.07	<0.6	<3.5	<3.0
Cadmium	6.2	<5	<50	<10
Chromium III	1.14	<1.9	<20	<9.5
Chromium VI	ND	<2.0	<20	<10
Copper	15.8	11.1	77.42	55
Lead	10.9	<6.5	53.41	<33
Mercury	0.18	<0.2	0.88	<1.0
Nickel	38	14.0	184.73	70
Selenium	1.13	<5	5.54	<25
Silver	1.9	<1.2	9.31	<6.0
Thallium	<3.4	<3.4	9.8	<17
Zinc	67	54	330.26	270
Cyanide	ND	<50	<250	<250
Phenolic Compounds	120	<110	588	<550

¹ Based on 2003 maximum detected value in HARRF secondary effluent.

² ND = Non-Detect

Organic phosphate inhibitors are used for controlling biological growth within cooling tower and power generation facilities to control biological growth. No toxic organic algaecides or other toxic organic compounds are proposed at PEP or are used at Iceoplex that would adversely affect IBCS effluent quality.

Data for toxic organic parameters for HARRF recycled water is not available. Data for toxic compounds in the HARRF secondary effluent at concentrations in excess of method detection limits during 2003 include chloroform, methylene chloride, phenol, 1,4-dichlorobenzene, and BHC (total).

It is expected that volatile compounds in the HARRF recycled water will volatilize in the evaporative cooling towers. Non-volatile toxic constituents in the HARRF recycled water are expected to be concentrated by the power plant evaporative cooling and water treatment operations at a ratio at approximately 5 to 1. Effluent quality of toxic organic constituents is not expected to differ significantly from Phase I to Phase II. The expected effluent quality for anticipated toxic organic constituents are summarized in *Table 5. Projected Toxic Organic Concentrations.*

Table 5. Projected Toxic Organic Concentrations.

Category	Compound	2003 Maximum Detected Value in HARRF Secondary Effluent (µg/L)	2003 Mean Value for HARRF Secondary Effluent (µg/L)	Projected Maximum Concentration in IBCS Brine Effluent (µg/L) ¹	Projected Mean Concentration in IBCS Brine Effluent (µg/L)
Volatile Organic Compounds	Chloroform	3.0	<2	ND	ND
	Methylene Chloride	3.8	<4	ND	ND
	All other volatile compounds	ND	ND	ND	ND
Acid Extractable Compounds	Phenol	120	<110	<600	<550
	All other acid extractable compounds	ND	ND	ND	ND
Base Neutral Compounds	1,4-dichlorobenzene	1.0	<1	5	<5
	All other base neutral compounds	ND	ND	ND	ND
Pesticides	BHC (total)	0.09	<0.06	0.45	<0.3
	All other pesticides	ND	ND	ND	ND

¹ Based on 2003 maximum detected value in HARRF secondary effluent.

² ND = Non-detect

Whole effluent toxicity data is not available for the IBCS discharge.

Organic phosphate inhibitors are used for controlling biological growth within cooling tower and power generation facilities to control biological growth. No toxic organic algaecides or other toxic organic compounds are proposed at PEP or are used at Iceoplex

that would adversely affect IBCS effluent quality. Chemicals to be added to the PEP cooling tower water and wastewater system are summarized in *Table 6. PEP Chemical Additives*.

Table 6. PEP Chemical Additives.

Chemical Additive	Injection Point(s)	Purpose of Additive
Sodium Hypochlorite	Raw water storage tank, cooling tower, ultra filter backwash	Disinfectant to control biological fouling.
Nalco Acti-Brome 1338	Raw water storage tank	Disinfectant to control biological fouling.
Nalco Ferralyte 8132	Ultra filter inlet	Coagulant used to improve removal of suspended solids
Sodium Hydroxide	Reverse osmosis system, ultra filter	Removal of carbon dioxide from inlet to demineralizer; pH adjustment
Sulfuric Acid	Reverse osmosis makeup, cooling tower, ultra filter backwash	PH adjustment, control circulating water alkalinity
PermaTreat PC-191	Reverse osmosis makeup	Reverse osmosis membrane anti-scalant
Nalco 7408	Reverse osmosis makeup, cooling tower blowdown	Dechlorination
Sodium Chloride	Electro-Deionization	Increase conductivity
Nalco 3DT195	Circulating water mineral dispersant and corrosion inhibitor	Circulating water anti-scalant
Nalco 3DT BR40	Cooling tower	Tracer for acti-brome
Nalco 73550	Cooling tower	Circulating water mineral dispersant and corrosion inhibitor
Nalco Eliminiox	Condensate cycle	Boiler feedwater oxygen scavenger
Nalco Tri-Act 1800	Condensate cycle	pH adjustment
Nalco BT-3000	Heat Recovery Steam Generator	Boiler water pH adjustment and conditioner
Aqueous Ammonia	SCR (exhaust gases)	NOx reduction
Nalco 8338	Closed cycle cooling water system	Corrosion inhibitor
Nalco 7330	Closed cycle cooling water system closed cooling	Biocide

Information was supplied by the Iceoplex cogeneration facility indicating chemical additives are used in the Iceoplex cogeneration-cooling tower. Chemicals to be added to the Iceoplex cogeneration facility cooling tower water are summarized in *Table 7. Iceoplex Chemical Additives*.

Table 7. Iceoplex Chemical Additives.

Chemical Additive	Injection Point(s)	Purpose of Additive
Sodium Hypochlorite	Cooling tower	Disinfectant to control biological fouling.
Sulfuric Acid	Cooling tower	pH Control.
Phosphate Compound	Cooling tower	Corrosion inhibitor

Pursuant to Section VII.A.5 of the MRP, a final list of chemicals that will be used by PEP and Iceoplex in the wastewater treatment system and cooling tower is required to be submitted to the Regional Water Board 30-days prior to discharging to the IBCS.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) that implements regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit for point source discharges from the IBCS to a surface water of the United States. This Order establishes Waste Discharge Requirements pursuant to Article 4, Chapter 4 of the CWC.

B. California Environmental Quality Act (CEQA)

New sources as defined by the CWA must meet CEQA requirements specified in CWC 13389. The Regional Water Board has considered the environmental impact report (EIR) and concurs that there are no significant impacts on water quality and all CEQA requirements have been met. The City filed a Notice of Determination on February 27, 2003.

C. State and Federal Regulations, Policies, and Plans

- 1. Basin Plan.** The Regional Water Board adopted a *Water Quality Control Plan for the San Diego Basin* (hereinafter Basin Plan) on September 8, 1994. The Basin Plan was subsequently approved by the State Water Resources Control Board (State Water Board) on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the Regional Water Board and approved by the State Water Board. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Beneficial uses applicable to Pacific Ocean are listed in *Table 8. Basin Plan Beneficial Uses*.

Table 8. Basin Plan Beneficial Uses of the Pacific Ocean.

Outfall Number	Receiving Water Name	Beneficial Use(s)
C-001	Pacific Ocean	<p><u>Existing:</u></p> <p>Industrial Service Supply (IND); Navigation (NAV); Contact Water Recreation (REC-1); Non-Contact Water Recreation (REC-2); Commercial and Sport Fishing (COMM); Preservation of Biological Habitats of Special Significance (BIOL); Wildlife Habitat (WILD); Rare, Threatened, or Endangered Species (RARE); Marine Habitat (MAR); Aquaculture (AQUA); Migration of Aquatic Organisms (MIRG); Spawning, Reproduction, and/or Early Development (SPWN); Shellfish Harvesting (SHELL)</p>

Chapter 3, Water Quality Objectives, on p. 3-4 of the Basin Plan specifically states that the *Water Quality Control Plan for the Ocean Waters of California* (hereinafter, Ocean Plan) is incorporated into the Basin Plan for protection of the beneficial uses of the State ocean waters.

2. **Ocean Plan.** On November 16, 2000 the State Water Board adopted a revised Ocean Plan. The revised Ocean Plan became effective on December 3, 2001. The Ocean Plan contains water quality objectives and beneficial uses for the ocean waters of California. The beneficial uses of State ocean waters to be protected are summarized in *Table 9. Ocean Plan Beneficial Uses*.

Table 9. Ocean Plan Beneficial Uses of the Pacific Ocean.

Outfall Number	Receiving Water Name	Beneficial Use(s)
C-001	Pacific Ocean	<p>Industrial Water Supply; Water Contact and Non-Contact Recreation, Including Aesthetic Enjoyment; Navigation; Commercial and Sport Fishing; Mariculture; Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS); Rare and Endangered Species; Marine Habitat; Fish Migration; Fish Spawning and Shellfish Harvesting</p>

In order to protect these beneficial uses, the Ocean Plan establishes water quality objectives (for bacterial, physical, chemical, and biological characteristics, and for radioactivity), general requirements for management of waste discharged to the ocean, quality requirements for waste discharges (effluent quality requirements), discharge prohibitions, and general provisions.

3. **Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (hereinafter, Thermal Plan) on May 18, 1972, and amended it

on September 18, 1975. The Thermal Plan contains temperature objectives for coastal surface waters.

- 4. Antidegradation Policy.** 40 CFR 131.12 requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the requirements of the federal antidegradation policy. State Water Board Resolution No. 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. As discussed in detail in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution No. 68-16.
- 5. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. No effluent limitations have previously been established for this discharge.
- 6. Monitoring and Reporting Requirements.** 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (Attachment E) establishes monitoring and reporting requirements to implement federal and State requirements.
- 7. Regional Water Board Order No. R9-2005-0101 (NPDES Permit for HARRF).** Existing waste discharge requirements for HARRF are contained in Order No. R9-2005-0101 (NPDES No. CA0107981), adopted by the Regional Water Board on June 8, 2005. Order No. R9-2005-0101 included regulations for an increase in the HARRF discharge flow limitation from 16.5 mgd to 18.0 mgd.
- 8. Regional Water Board Order No. R9-2005-0100 (NPDES Permit for SEJPA discharge to SEOO).** The SEJPA discharge to SEOO is currently regulated by Regional Water Board Order No. R9-2005-0100 (NPDES No. CA0107999). Order No. R9-2005-0100 includes regulations for discharge up to 5.25 mgd of treated wastewater to SEOO.

D. Impaired Water Bodies on CWA 303(d) List

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations for point sources. For all 303(d)-listed water bodies and pollutants, the Regional Water Board plans to develop and adopt total maximum daily loads (TMDLs) that will specify waste load allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, as appropriate.

The USEPA has approved the State's 303(d) list of impaired water bodies. Certain receiving waters in the San Diego County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2002 303(d) list and have been scheduled for TMDL development.

The 2002 State Water Board's California 303(d) List classifies the Pacific Ocean Shoreline, Escondido Creek Hydrologic Area as impaired for bacteria. Currently there is no proposed date for the TMDL completion for this receiving water body.

Because the discharge from the IBCS is dechlorinated municipal water comprised of concentrated sodium chloride, magnesium ions, and calcium ions, this discharge is not likely to contribute to the bacterial impairment of the receiving water body. Further, the discharge is not expected to contain significant concentrations of bacteria. This Order does not allow the discharge of detectable levels of bacteria that would contribute to the impairment of the receiving water body.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 CFR 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality objective to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, three options exist to protect water quality: 1) 40 CFR 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); 2) proposed State criteria or a State policy interpreting narrative objective supplemented with other relevant information may be used; or 3) an indicator parameter may be established.

A diffuser has been installed on the submerged discharge outfall pipe from the SEOO. Based on State Water Board modeling, the diffuser increases the initial dilution by a factor of 237:1. A dilution factor of 237:1 has been allowed for discharges of the total combined IBCS effluent. Information relevant to the modeling of the SEOO outfall is included in Attachment G.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Ocean Plan, Thermal Plan, and the CWC, and are consistent with the requirements set for other discharges regulated by waste discharge requirements adopted by this Regional Water Board.

1. Compliance with Discharge Prohibitions contained in Section III.H of the Ocean Plan is a requirement of this Order.
2. Compliance with applicable Discharge Prohibitions contained in the Basin Plan is a requirement of this Order.
3. Discharges of wastes in a manner or to a location which have not been specifically authorized by this Order and for which valid waste discharge requirements are not in force are prohibited.
4. The discharge of wastewater at a rate exceeding 1.5 mgd during Phase I of IBCS operation; 1.5 mgd during Phase II of IBCS operation; or any rate that when combined with the effluent discharge rate from HARRF contributes to an exceedance of 18 mgd, is prohibited unless the Discharger obtains revised waste discharge requirements authorizing an increased discharge.
5. The discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid at Internal Discharge Points I-001 through I-008 is prohibited.
6. Neither free available chlorine nor total residual chlorine may be discharged from any power generating unit contributing to cooling tower blowdown effluent at Internal Discharge Points I-002 and I-003 for more than 2 hours in any one day and not more than one unit in any facility may discharge free available or total residual chlorine at any one time.
7. The discharge of wastewater, that when combined with the effluent discharged from HARRF, contributes to an exceedance of the Thermal Plan and the temperature effluent limitation established in Section IV.B of this Order is prohibited.
8. Odors, vectors, and other nuisances of waste origin beyond the limits of the property controlled by the Discharger are prohibited.

B. Technology-Based Effluent Limitations

1. Scope and Authority

The CWA requires that technology-based effluent limitations be established based on several factors:

- a. Best practicable treatment control technology (BPT) is based on the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.
- b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable

within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.

- c. Best conventional pollutant control technology (BCT) is a standard for the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after evaluating the cost of attaining a reduction in pollutant discharge, the benefits that would result, and the cost effectiveness of additional industrial treatment beyond BPT.
- d. New source performance standards (NSPS) that represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that implement new treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELG), BPT, BCT, BAT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR section 125.3 authorize the use of best professional judgment (BPJ) to develop technology-based effluent limitations on a case-by-case basis where ELGs are not available. Where BPJ is used, the permit writer must comply with 40 CFR section 125.3. None of the effluent limitations contained in this Order were established using BPJ.

Pursuant to 40 CFR section 122.2 a new source is defined as any building, structure, facility, or installation from which there is or may be a discharge of pollutants after the promulgation of effluent guidelines. The effluent guidelines for steam electric power generating point source became effective on November 19, 1982. The PEP facility is currently under construction and is a new source performance standards (NSPS) facility. The Iceoplex cogeneration facility was constructed after November 19, 1982 and began operation in 1995 and is also subject to NSPS.

The single Phase I industrial user (PEP) is a recently built natural gas combined cycle power plant and is subject to NSPS for the steam electric power generating point source category ELGs specified in 40 CFR section 423.15. According to 40 CFR section 423.11, low volume wastes are defined as wastewater from all sources except those for which specific limitations are otherwise established. Pursuant to 40 CFR section 423.15 (c), the waste brine from the on-site water treatment system is subject to meet NSPS ELG-based effluent limitations for low volume waste sources prior to commingling with any other waste streams. The cooling tower blow down effluent from PEP effluent must meet NSPS prior to commingling with other wastewaters (including all low volume wastewaters) and being discharged to the IBCS. Because the IBCS is not a publicly owned treatment works facility as defined in 40 CFR section 403.3(o), pretreatment standards for new sources are not applicable to the effluent waste stream from PEP.

During Phase II of the IBCS, Iceoplex cogeneration facility will begin to discharge to the IBCS. The Iceoplex cogeneration facility commenced operation in 1994 and

currently discharges to a sanitary sewer system. The cogeneration facility includes a 41.2-megawatt combustion turbine that burns natural gas. Exhaust from the combustion turbine is ducted to a heat recovery steam generator to produce steam. High-pressure steam from the heat recovery steam generator is used in a 10.2 megawatts steam turbine generator. Section 423.10 of 40 CFR establishes the ELGs for steam electric power generating point source category to discharges resulting from the operation of a generating unit by an establishment primarily engaged in the generation of electricity for distribution and sale which results primarily from a process utilization of fossil-type fuel or nuclear fuel in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium. Pursuant to 40 CFR Part 423, wastewaters from the Iceoplex cogeneration facility must meet NSPS prior to commingling with other wastewaters.

The City of Escondido has applied for waste discharge requirements for the discharge of dechlorinated PEP and Iceoplex cogeneration effluent. The IBCS is acting as a conveyance for the industrial waste. Pursuant to the City of Escondido's NPDES permit application, the City of Escondido is responsible for compliance with the NSPS ELG-based effluent limitations and prohibitions.

In compliance with 40 CFR section 122.45(f) and 40 CFR Part 423.15, mass-based limitations have also been established in the Order for conventional, nonconventional, and toxic pollutants. Generally, mass-based limitations ensure that proper treatment, and not dilution is employed to comply with the final effluent concentration limitations. Pursuant to 40 CFR 122.45, mass-based limitations are calculated using long term average flows. Because the PEP effluent is a new discharge, the mass-based effluent limitations contained in the Order for discharges from PEP are based on a maximum total discharge flow rate to allow for some variances within the expected flow rates. When calculating the mass-based limitations for discharges, the appropriate flow, instantaneous maximum limitations for instantaneous maximum mass calculations, and the 30-day average limitations when calculating the 30-day average mass, should be substituted in the following equation:

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} * 8.34 * \text{effluent limitation (mg/L)}$$

where: mass = mass limitation for a pollutant (lbs/day)
 effluent limitation = concentration limitation for a pollutant (mg/L)
 flow rate = discharge flow rate (MGD)

2. Applicable Technology-Based Effluent Limitations

a. Phase I (PEP)

Pursuant to 40 CFR section 423.15, NSPS, ELGs for steam electric power generating facilities have been established in this Order. The Report of Waste Discharge (RWD) submitted to the Regional Water Board by the Discharger

indicates that cooling tower blowdown, evaporative cooler blowdown, reverse osmosis brine, deionization brine, various low volume floor drain effluent, and heat recovery steam generator blowdown will be discharged into the IBCS by PEP during Phase I of the IBCS. The Discharger indicates that all other wastes, including drains located in areas of chemical storage and those subject to discharges of oily discharges from the PEP facility will be directed to the sanitary sewer.

The ELGs prohibit the discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid in all wastewaters from the facility.

Numeric ELG-based effluent limitations applicable to all NSPS discharges and for low volume wastes have been established in this Order at Internal Discharge Point I-001 at a wastewater collection and transfer sump. ELG-based effluent limitations for low volume wastes are applicable for the low volume waste prior to commingling with other wastewaters or being routed to the cooling tower.

The ELGs establish effluent limitations for pH. Further, concentration-based effluent limitations and mass-based effluent limitations are established for total suspended solids (TSS) and oil and grease in low volume wastes.

An internal discharge point for evaporative cooler blowdown, ultra filtration backwash, reverse osmosis brine backwash, deionization brine backwash, various low flow floor drains, and heat recovery steam generator blowdown has been established at the waste water collection and transfer sump. Mass-based effluent limitations have been established for low volume wastes based on a total low volume waste flow of 0.32 mgd. Low volume wastes ELG-based effluent limitations are summarized in *Table 10. Technology Based Effluent Limitations for Low Volume Waste (Discharge Point I-001)*.

Table 10. Technology Based Effluent Limitations for Low Volume Waste (Discharge Point I-001).

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
TSS	mg/L	30	100	--	--
	lbs/day	80.1	266.9	--	--
Oil and Grease	mg/L	15	20	--	--
	lbs/day	43.8	53.4	--	--

ELG-based effluent limitations applicable to cooling tower blowdown effluent from PEP have been established in the Order at Internal Discharge Point I-002.

The ELGs establish effluent limitations for pH. Further, concentration-based effluent limitations are applicable to cooling tower blowdown for free available chlorine, total chromium, total zinc, and the remaining priority pollutants (listed in Attachment H). The ELGs prohibit the discharge of available chlorine and total

residual chlorine in cooling tower blowdown from any unit for more than two hours in any one day. Further, not more than one unit in any plant may discharge free available or total residual chlorine at any one time. Mass-based effluent limitations for cooling tower blowdown are based on a maximum peak flow of 1.27 gpd. The applicable technology-based effluent limitations for Internal Discharge Point I-002 are listed in *Table 11. Technology-Based Effluent Limitations for Cooling Tower Blowdown (Discharge Point I-002)*.

Table 11. Technology-Based Effluent Limitations for Cooling Tower Blowdown (Discharge Point I-002).

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
Free available chlorine	mg/L	--	--	--	0.5 ¹
	lbs/day	--	--	--	5.3
Chromium, total ^{2,3}	mg/L	0.2	0.2	--	--
	lbs/day	2.1	2.1	--	--
Zinc, total ^{2,3}	mg/L	1.0	1.0	--	--
	lbs/day	11.6	11.6	--	--
Remaining priority pollutants ³	ug/L	ND ⁴	--	--	ND ⁴

¹ The ELGs establish an effluent limitation of 0.2 mg/L as an “Average concentration”. The ELGs at 40 CFR 423.11(k) define the “Average concentration” as the average of analyses made over a single period of chlorine release which does not exceed two hours. Further, 40 CFR section 423.15 (j)(2) prohibits the discharge of either free available chlorine or total residual chlorine from any unit for more than two hours in any one day and this discharge prohibition has been established in the Order.

² The effluent limitations for metals are expressed as total recoverable.

³ Effluent limitations for total chromium, total zinc, and the remaining priority pollutants are only applicable for priority pollutants added for cooling tower maintenance.

⁴ Detectable amounts of priority pollutants listed in Attachment H in the cooling tower blowdown effluent are prohibited.

b. Phase II (Iceoplex Cogeneration Facility)

The discharge of cooling tower blowdown and low volume waste from the Iceoplex cogeneration facility is subject to 40 CFR section 423.15, NSPS ELGs for steam electric power generating facilities. ELG-based effluent limitations have been established in this Order for the discharge of blowdown from the cogeneration facility cooling towers, and the discharge of low volume waste (demineralization brine). The RWD submitted to the Regional Water Board by the City of Escondido indicates that a total discharge flow of wastewater to the IBCS from the Iceoplex cogeneration facility is expected to be approximately 29,400 gallons per day (gpd) with a maximum discharge of 50,000 gpd. A maximum discharge flow for the cooling tower blowdown of 50,000 gpd was confirmed during a phone call on July 28, 2005 with a facility representative. During the phone call, the facility representative indicated that a low volume waste (demineralization brine) is directed to the cooling tower prior to discharge.

The WDR indicates that a heat recovery generator blowdown discharge may be discharged to the IBCS once the Iceoplex facility is connected to the IBCS. The facility representative confirmed that the heat recovery generator blowdown would not be directed to the IBCS and would continue to be discharged to the sanitary sewer.

The ELGs prohibit the discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid in all wastewaters from the facility.

The ELGs establish effluent limitations for pH. Further, concentration-based effluent limitations and mass-based effluent limitations are established for total suspended solids, and oil and grease in low volume wastes.

An internal discharge point for demineralization brine from the on-site water treatment facility at the Iceoplex cogeneration facility has been established as Internal Discharge Point I-003. Mass-based effluent limitations have been established for low volume waste (demineralization brine) based on a low volume waste flow of 20 gallons per minute, 19 hours per day for a total flow of 22,800 gpd. Low volume wastes ELG-based effluent limitations are summarized in *Table 12. Technology Based Effluent Limitations for Low Volume Waste (Discharge Point I-003)*.

Table 12. Technology Based Effluent Limitations for Low Volume Waste (Discharge Point I-003).

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
TSS	mg/L	30	100	--	--
	lbs/day	5.7	19	--	--
Oil and Grease	mg/L	15	20	--	--
	lbs/day	2.8	3.8	--	--

ELG-based effluent limitations applicable to cooling tower blowdown effluent from the Iceoplex cogeneration facility have been established in the Order at Internal Discharge Point I-004.

The ELGs establish effluent limitations for pH. Further, concentration-based effluent limitations are applicable to cooling tower blowdown for free available chlorine, total chromium, total zinc, and the remaining priority pollutants (listed in Attachment H). The ELGs prohibit the discharge of available chlorine and total residual chlorine in cooling tower blowdown from any unit for more than two hours in any one day. Further, not more than one unit in any plant may discharge free available or total residual chlorine at any one time. Mass-based effluent limitations for cooling tower blowdown are based on a long-term average flow of 29,400 gpd. The applicable technology-based effluent limitations for Internal

Discharge Point I-004 are listed in *Table 13. Technology-Based Effluent Limitations for Cooling Tower Blowdown (Discharge Point I-004)*.

Table 13. Technology-Based Effluent Limitations for Cooling Tower Blowdown (Discharge Point I-004).

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
Free available chlorine	mg/L	--	--	--	0.5 ¹
	lbs/day	--	--	--	0.2
Chromium, total ^{2,3}	mg/L	0.2	0.2	--	--
	lbs/day	0.1	0.1	--	--
Zinc, total ^{2,3}	mg/L	1.0	1.0	--	--
	lbs/day	0.4	0.4	--	--
Remaining priority pollutants ³	ug/L	ND ⁴	--	--	ND ⁴

¹ The ELGs establish an effluent limitation of 0.2 mg/L as an “Average concentration”. The ELGs at 40 CFR 423.11(k) define the “Average concentration” as the average of analyses made over a single period of chlorine release which does not exceed two hours. Further, 40 CFR section 423.15 (j)(2) prohibits the discharge of either free available chlorine or total residual chlorine from any unit for more than two hours in any one day and this discharge prohibition has been established in the Order.

² The effluent limitations for metals are expressed as total recoverable.

³ Effluent limitations for total chromium, total zinc, and the remaining priority pollutants are only applicable for priority pollutants added for cooling tower maintenance.

⁴ Detectable amounts of priority pollutants listed in Attachment H in the cooling tower blowdown effluent are prohibited.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

USEPA regulations at 40 CFR 122.44 (d) (1) (i) require permits to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels, which cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. For discharges to the Pacific Ocean, the Ocean Plan allows the Regional Water Board no discretion in the application of WQBELs. The Ocean Plan requires the establishment of WQBELs in discharge permits for all toxic pollutants from Table B of the Ocean Plan.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

In order to protect the beneficial uses established in the Ocean Plan and the Basin Plan (referenced in Part III.C of this Fact Sheet), the Ocean Plan establishes water quality objectives (for bacterial, physical, chemical, and biological characteristics, and for radioactivity), general requirements for management of waste discharged to the ocean,

quality requirements for waste discharges (effluent quality requirements), discharge prohibitions, and general provisions.

Table A of the Ocean Plan provides effluent limitations for conventional and certain non-conventional pollutants (including grease and oil, settleable solids, turbidity, and pH). Table B of the Ocean Plan list water quality objectives for pollutants for protection of marine aquatic life and human health (carcinogens and noncarcinogens).

Section 3 of the Thermal Plan specifies narrative waste discharge requirements for temperature into coastal waters.

3. Determining the Need for WQBELs for Priority Pollutants

Section II.D of the Ocean Plan establishes numeric water quality objectives for the protection of marine aquatic life and human health.

The Ocean Plan allows the use of a minimum probable initial dilution factor, D_m (expressed as parts seawater per part wastewater), for calculation of effluent limitations for the priority pollutant water quality objectives listed in Table B of the Ocean Plan. The Regional Water Board has determined that a dilution factor of 237:1 is applicable to the SEOO.

The IBCS is a new discharge. No effluent data for the IBCS is available to complete a reasonable potential analysis. The Discharger submitted projected effluent quality data in the Report of Waste Discharge. The projected effluent quality data are estimates based on projected source water quality from HARRF, known characteristics of existing sanitary sewer dischargers (e.g., Boncor, Culligan, Iceoplex), and water quality projections provided to the Discharger by PEP. The projected effluent quality data was utilized in-part to determine reasonable potential.

The projected maximum effluent concentrations for pollutants contained in the IBCS in *Table 4. Projected Metals and Cyanide Concentrations*, and *Table 5. Projected Toxic Organic Concentrations* were compared to the Table B water quality objectives contained in the Ocean Plan. None of the projected maximum effluent concentrations exceeded the Ocean Plan water quality objectives (with a dilution factor of 237:1). Discharges to the IBCS are not expected to contain levels of toxic metals, volatile organics, or other priority pollutants that would exceed water quality objectives.

Because there is not reasonable potential for the discharge of priority pollutants, Order No. R9-2005-0139 does not contain WQBELs for individual metals and priority pollutants listed in Table B of the Ocean Plan (except chronic toxicity) for the total IBCS effluent.

Because actual data is not available to conduct a RPA, the Discharger shall conduct accelerated monitoring, as specified in Section VII.B.2.b of this Fact Sheet, for pollutants with water quality objectives specified in Table A and Table B of the Ocean

Plan. A chronic toxicity effluent limitation has been established in this Order pursuant to Table B of the Ocean Plan to provide a minimum level of protection of water quality objectives.

4. Determining the Need for WQBELs for Non-Priority Pollutants

The Thermal Plan establishes narrative effluent limitations for elevated temperature wastes discharged to coastal waters. The tentative effluent temperatures for the IBCS discharge in the Report of Waste Discharge submitted to this Regional Water Board and summarized in *Table 2. Projected Physical and Chemical Concentrations* indicate elevated effluent temperatures above the ambient receiving water temperature. The IBCS demonstrates reasonable potential to exceed water quality-based effluent limitations established in the Thermal Plan. Pursuant to the Thermal Plan, WQBELs for temperature have been established in Order No. R9-2005-0139.

The pollutants of grease and oil, suspended solids, settleable solids, turbidity, and pH are characteristic of all effluent discharges. Pursuant to Table A of the Ocean Plan, effluent limitations for grease and oil, suspended solids, settleable solids, turbidity, and pH are established for the discharge of IBCS effluent in Order No. R9-2005-0139.

Table A of the Ocean Plan establishes a performance-based effluent limitation for suspended solids. Table A of the Ocean Plan states that the Discharger shall, as a 30-day average, remove 75% of suspended solids from the influent stream before discharging wastewaters to the ocean, except that the effluent limitation to be met shall not be lower than 60 mg/L. The projected maximum effluent concentration for suspended solids for IBCS is <60 mg/L. Because the maximum effluent concentration for suspended solids is projected to be lower than 60 mg/L, the requirement to remove 75% of suspended solids from the influent stream before discharging wastewaters is not applicable to this discharge and an instantaneous maximum effluent limitation of 60 mg/L has been established.

5. WQBELs Calculations

Water quality based effluent limitations are based on projected effluent quality and water quality objectives specified in Table A and Table B of the Ocean Plan (2001). WQBELs for Table A pollutants were determined pursuant to Section III.B of the Ocean Plan. The WQBEL for chronic toxicity was calculated pursuant to Section III.C of the Ocean Plan.

The process for developing a WQBEL for chronic toxicity according to Section III.C of the Ocean Plan is shown in the following example:

For each Ocean Plan Table B constituent requiring an effluent limitation (chronic toxicity), identify the applicable water quality effluent limitation contained in Table B of the Ocean Plan. Effluent limitations for water quality objectives listed

in Table B, with the exception of acute toxicity and radioactivity, may be determined through the use of the following equation:

$$C_e = C_o + D_m (C_o - C_s)$$

Where C_e = The effluent concentration limit
 C_o = The concentration (water quality objective) to be met at the completion of initial dilution
 C_s = Background seawater concentration
 D_m = Minimum probable initial dilution expressed as parts seawater per part wastewater.

A dilution factor of 237 was used to calculate the effluent limitation established for chronic toxicity. Further, no background concentration of chronic toxicity was assumed. Therefore for chronic toxicity:

$$C_e = 1 \text{ TUc} + (237)(1 \text{ TUc} - 0 \text{ TUc})$$

Thus, for chronic toxicity the applicable WQBEL is:

$$C_e = 238 \text{ TUc}$$

In compliance with 40 CFR section 122.45(f), mass-based limitations have also been established in the Order for conventional, nonconventional, and toxic pollutants. Generally, mass-based limitations ensure that proper treatment, and not dilution is employed to comply with the final effluent concentration limitations. Pursuant to 40 CFR 122.45, mass-based limitations are calculated using long term average flows. Because this is a new discharge, the mass-based effluent limitations contained in the Order for the total combined IBCS effluent are based on a maximum total discharge flow rate of 1.4 MGD during Phase I of IBCS operation, and 1.5 MGD during Phase II of IBCS operation, established for Discharge Point C-001. When calculating the mass-based limitations for discharges, the appropriate flow, instantaneous maximum limitations for instantaneous maximum mass calculations, and the 30-day average limitations when calculating the 30-day average mass, should be substituted in the following equation:

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} * 8.34 * \text{effluent limitation (mg/L)}$$

where: mass = mass limitation for a pollutant (lbs/day)
 effluent limitation = concentration limitation for a pollutant (mg/L)
 flow rate = discharge flow rate (MGD)

Using the monthly average effluent limitation for grease and oil at Discharge Point C-001 during Phase II operation of the IBCS as an example, the following equation demonstrates how water quality based effluent limitations were established for this Order.

$$\text{Mass (lbs/day)} = 1.5 \text{ (MGD)} * 8.34 * 25 \text{ (mg/L)} = 313 \text{ lbs/day}$$

Pursuant to 40 CFR section 122.45(f), and outlined in this Fact Sheet, the WQBELs summarized in *Table 14. Summary of WQBELs for Combined Discharge Point C-001* have been established in the Order:

Table 14. Summary of WQBELs for Combined Discharge Point C-001.

Parameter	Units	Effluent Limitations						Basis ¹
		6-Month Median	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Temperature	°F	2						TP
pH	units	--	--	--	--	6.0	9.0	OP
Oil and Grease	mg/L	--	25	40	--	--	75	OP
	Phase I - lbs/day ³	--	292	467	--	--	876	
	Phase II - lbs/day ⁴	--	313	500	--	--	939	
Turbidity	NTU	--	75	100	--	--	225	OP
Settleable Solids	ml/L	--	1.0	1.5	--	--	3.0	OP
Suspended Solids	mg/L	--	--	--	--	--	60	OP
	Phase I - lbs/day ³	--	--	--	--	--	701	
	Phase II - lbs/day ⁴	--	--	--	--	--	751	
Chronic Toxicity ⁵	TUc	--	--	--	238	--	--	OP

1 OP = Ocean Plan; TP = Thermal Plan.

2 The maximum temperature of the effluent shall not exceed the natural temperature of receiving waters by more than 20 °F at any time.

3 Mass-based effluent limitations have been calculated based on a maximum daily flow of 1.4 MGD. These mass-based effluent limitations are applicable during the Phase I operation of the IBCS.

4 Mass-based effluent limitations have been calculated based on a maximum flow value of 1.5 MGD. These mass-based effluent limitations are applicable during the Phase II operation of the IBCS.

5 Compliance with the effluent limitation for chronic toxicity shall be determined as specified in Section IV.C.6 of this Fact Sheet.

6. Whole Effluent Toxicity (WET)

The 2001 Ocean Plan establishes numeric objectives for chronic toxicity in Section II.D, Table B, with a chronic toxicity daily maximum effluent objective of 1.0 (TU_c). Based on methods of the Ocean Plan (2001) with a minimal initial dilution of 237:1, a maximum daily effluent limitation of 238 TUc for chronic toxicity is required. Pursuant to Section III.C.3.c of the Ocean Plan, the Discharger shall conduct chronic toxicity monitoring.

Chronic toxicity is to be calculated using the following formula:

$$TU_c = \frac{100}{NOEL}$$

Where: No Observed Effect Level (NOEL) is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test as listed in Appendix II of the 2001 Ocean Plan.

If toxicity effluent limitations established in the Order are exceeded, then, within 15 days of the exceedance, the Discharger shall begin conducting six additional toxicity tests over a six-month period and provide the results to the Regional Water Board. If the additional monthly toxicity tests indicate that toxicity effluent limitations are being consistently violated, the Regional Water Board may require the Discharger to complete a toxicity reduction evaluation (TRE) and Toxic Identification Evaluation (TIE).

D. Final Effluent Limitations

Pursuant to 40 CFR section 423.15, the final effluent limitations in *Table 15. Final Effluent Limitations for Internal Discharge Point I-001* have been established in the Order for the discharge of PEP low volume waste discharges at Internal Discharge Point I-001.

Table 15. Final Effluent Limitations for Internal Discharge Point I-001.

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
TSS	mg/L	30 ²	100	--	--
	lbs/day ¹	80.1 ²	266.9	--	--
Oil and Grease	mg/L	15	20	--	--
	lbs/day ¹	43.8	53.4	--	--

¹ Mass-based effluent limitations have been established based on a maximum effluent flow of 0.32 mgd.

² The effluent limitations for TSS are dependent on the source water value of TSS. Under normal operations when the TSS concentration in the reclaimed water supplied by HARRF is greater than or equal to 17.6 mg/L, the Discharger is expected to meet these limitations. Under critical operational periods, when the TSS concentration in the reclaimed water supplied by HARRF is greater than 17.6 mg/L, intake water credits may be applicable pursuant to 40 CFR 122.45(g)(ii) as summarized in Table 15 of this fact sheet.

During periods of normal operations, the reclaimed water supplied to PEP for power generating operations is expected to have a TSS concentration of <5 mg/L. The reclaimed water supplied to PEP from HARRF is the only expected major source of TSS in the low volume waste streams. PEP has provided engineering calculations demonstrating that during normal operations, when TSS concentrations are expected to be less than 5 mg/L, the facility is capable of complying with the ELG-based effluent limitations for TSS at Internal Discharge Point I-001. Further, the engineering calculations demonstrate the facility is capable of complying with ELG-based effluent limitations for TSS at Internal Discharge Point I-001 with TSS concentrations in the source water as high as 17.6 mg/L. Recent data

and design specifications for the reclaimed water system submitted by the City indicate that the reclaimed water should not exceed TSS concentrations greater than 11.4 mg/L.

Pursuant to 40 CFR 122.45(g)(ii), the Discharger has requested intake water credits for TSS when the source water has concentrations of greater than 17.6 mg/L of TSS. Because the final combined outfall of the IBCS must still meet water quality objectives for TSS, no environmental degradation to water quality is expected from the granting of the intake credits. Because the only expected major source of TSS is the source water, the Regional Water Board has determined that the mass of TSS in the intake water is substantially similar to the mass of TSS in the effluent, although the concentration of TSS may be higher in the effluent due to the water treatment process. Thus, intake credits for the discharge of low volume waste streams at the PEP facility are within the requirements of 40 CFR 122.45(g)(ii).

Effluent limitations for the TSS in the Low Volume wastes are adjusted to the effluent limitations listed in *Table 16. Adjusted Effluent Limitations for Low Volume Wastes (Discharge Point I-001)* when the Discharger demonstrates that the source water has a concentration greater than 17.6 mg/L for TSS. The engineering calculations are summarized in Attachment I of the tentative Order. The adjusted effluent limitations apply when the PEP is properly operated. Because the HARRF may not distribute reclaimed water above 45 mg/L, no effluent limitation adjustments are provided above 45 mg/L of TSS or to comply with the ELG-based daily maximum effluent limitation of 100 mg/L. To receive the effluent limitations adjustments, the Discharger must provide HARRF reclaimed water data that demonstrates TSS in the source water was elevated as listed in the table below.

Table 16. Adjusted Effluent Limitations for Low Volume Wastes (Discharge Point I-001).

HARRF Reclaimed Water TSS Concentration (mg/L)	Intake Credit (mg/L)	Adjusted ELG-based Average Monthly Effluent Limitation ¹
0 to 17.6	0	30 mg/L
		62.5 lbs/day
17.6 to 20	3.8	33.8 mg/L
		70.5 lbs/day
20.1 to 25	12.3	42.3 mg/L
		88.2 lbs/day
25.1 to 30	20.7	50.7 mg/L
		105.7 lbs/day
30.1 to 35	29.2	59.2 mg/L
		123.4 lbs/day
35.1 to 40	37.6	67.6 mg/L
		140.9 lbs/day
40.1 to 45	46.1	76.1 mg/L
		158.7 lbs/day

¹ Mass-based effluent limitations have been established based on a maximum effluent flow of 0.25 mgd.

Pursuant to 40 CFR section 423.15, the final effluent limitations in *Table 17. Final Effluent Limitations for Internal Discharge Point I-002* have been established in the Order for the discharge of PEP cooling tower blowdown at Internal Discharge Point I-002.

Table 17. Final Effluent Limitations for Internal Discharge Point I-002.

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
Free available chlorine	mg/L	--	--	--	0.5 ¹
	lbs/day ²	--	--	--	5.3
Chromium, total ^{3,4}	mg/L	0.2	0.2	--	--
	lbs/day ²	2.1	2.1	--	--
Zinc, total ^{3,4}	mg/L	1.0	1.0	--	--
	lbs/day ²	10.6	10.6	--	--
Remaining priority pollutants ⁴	ug/L	ND ⁵	--	--	ND ⁴

¹The ELGs establish an effluent limitation of 0.2 mg/L as an “Average concentration”. The ELGs at 40 CFR 423.11(k) define the “Average concentration” as the average of analyses made over a single period of chlorine release which does not exceed two hours. Further, 40 CFR section 423.15 (j)(2) prohibits the discharge of either free available chlorine or total residual chlorine from any unit for more than two hours in any one day and this discharge prohibition has been established in the Order.

² Mass-based effluent limitations have been established based on a maximum effluent flow of 1.27 mgd.

³ The effluent limitations for metals are expressed as total recoverable.

⁴ Effluent limitations for total chromium, total zinc, and the remaining priority pollutants are only applicable for priority pollutants added for cooling tower maintenance.

⁵ Detectable amounts of priority pollutants listed in Attachment H in the cooling tower blowdown effluent are prohibited.

Pursuant to 40 CFR section 423.15, the final effluent limitations in *Table 18. Final Effluent Limitations for Internal Discharge Point I-003* have been established in the Order for Iceoplex low volume waste effluent at Internal Discharge Point I-003.

Table 18. Final Effluent Limitations for Internal Discharge Point I-003 .

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
TSS	mg/L	30	100	--	--
	lbs/day	5.7	19	--	--
Oil and Grease	mg/L	15	20	--	--
	lbs/day	2.8	3.8	--	--

¹ Mass-based effluent limitations have been established based on a maximum effluent flow of 0.0228 mgd.

Pursuant to 40 CFR section 423.15, the final effluent limitations in *Table 19. Final Effluent Limitations for Internal Discharge Point I-004* have been established in the

Order for the discharge of Iceoplex cooling tower blowdown at Internal Discharge Point I-004.

Table 19. Final Effluent Limitations for Internal Discharge Point I-004.

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	Units	--	--	6.0	9.0
Free available chlorine	mg/L	--	--	--	0.5 ¹
	lbs/day ²	--	--	--	0.2
Chromium, total ^{3,4}	mg/L	0.2	0.2	--	--
	lbs/day ²	0.1	0.1	--	--
Zinc, total ^{3,4}	mg/L	1.0	1.0	--	--
	lbs/day ²	0.4	0.4	--	--
Remaining priority pollutants ⁴	ug/L	ND ⁵	--	--	ND ⁴

¹The ELGs establish an effluent limitation of 0.2 mg/L as an “Average concentration”. The ELGs at 40 CFR 423.11(k) define the “Average concentration” as the average of analyses made over a single period of chlorine release which does not exceed two hours. Further, 40 CFR section 423.15 (j)(2) prohibits the discharge of either free available chlorine or total residual chlorine from any unit for more than two hours in any one day and this discharge prohibition has been established in the Order.

² Mass-based effluent limitations have been established based on a maximum effluent flow of 29,400 gpd.

³ The effluent limitations for metals are expressed as total recoverable.

⁴ Effluent limitations for total chromium, total zinc, and the remaining priority pollutants are only applicable for priority pollutants added for cooling tower maintenance.

⁵ Detectable amounts of priority pollutants listed in Attachment H in the cooling tower blowdown effluent are prohibited.

Pursuant to 40 CFR section 122.45(f), the final effluent limitations summarized in *Table 20. Summary of Final Effluent Limitations for Combined Discharge Point C- 001* have been established in the Order for the total combined IBCS effluent at Combined Discharge Point C-001.

Table 20. Summary of Final Effluent Limitations for Combined Discharge Point C-001.

Parameter	Units	Effluent Limitations					
		6-Month Median	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Temperature	°F	¹					
pH	units	--	--	--	--	6.0	9.0
Oil and Grease	mg/L	--	25	40	--	--	75
	Phase I - lbs/day ²	--	292	467	--	--	876
	Phase II - lbs/day ³	--	313	500	--	--	939

Parameter	Units	Effluent Limitations					
		6-Month Median	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Turbidity	NTU	--	75	100	--	--	225
Settleable Solids	ml/L	--	1.0	1.5	--	--	3.0
Suspended Solids	mg/L	--	--	--	--	--	60
	Phase I - lbs/day ²	--	--	--	--	--	701
	Phase II - lbs/day ³	--	--	--	--	--	751
Chronic Toxicity ⁴	TUc	--	--	--	238	--	--

¹ The maximum temperature of the effluent shall not exceed the natural temperature of receiving waters by more than 20 °F at any time.

² Mass-based effluent limitations have been calculated based on a maximum daily flow of 1.4 MGD. These mass-based effluent limitations are applicable during the Phase I operation of the IBCS.

³ Mass-based effluent limitations have been calculated based on a maximum flow value of 1.5 MGD. These mass-based effluent limitations are applicable during the Phase II operation of the IBCS.

⁴ Compliance with the effluent limitation for chronic toxicity shall be determined as specified in Section IV.C.6 of this Fact Sheet.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

Narrative and numerical receiving water limitations have been established in Order No. R9-2005-0139 based on water quality objectives specified in the Ocean Plan to ensure the reasonable protection of beneficial uses and the prevention of nuisance.

The discharge of waste through Combined Discharge Point C-001 shall not cause violation of the 2001 Ocean Plan water quality objectives. Compliance with the water quality objectives shall be determined from samples collected at monitoring stations determined by the Regional Water Board.

VI. MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting monitoring results. Sections 13267 and 13383 of the California Water Code authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and State requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for the IBCS.

A. Effluent Monitoring

Effluent monitoring requirements at internal monitoring points have been established to determine compliance with technology-based effluent limitations at internal discharge

points. Monthly effluent monitoring requirements for pH, TSS, and oil and grease have been established to determine compliance with effluent limitations at Internal Discharge Points I-001 and I-003 in Order No. R9-2005-0139 and summarized in Section IV.D of this Fact Sheet. Monthly effluent monitoring requirements for pH, free available chlorine, total chromium, total zinc, and the remaining priority pollutants have been established to determine compliance with effluent limitations at Internal Discharge Points I-002 and I-004 in Order No. R9-2005-0139 and summarized in Section IV.D of this Fact Sheet.

Effluent monitoring requirements for Internal Discharge Points I-001 and I-003 are listed in *Table 21. Effluent Monitoring Requirements for Internal Discharge Points of Low Volume Wastes.*

Table 21. Effluent Monitoring Requirements for Internal Discharge Points of Low Volume Wastes.

Constituent ¹	Units	Sample Type	Frequency
Flow ²	GPD	Continuous	Continuous
pH	Units	Grab/Continuous	Monthly
Total Suspended Solids	mg/L	24-hr composite	Monthly
	lbs/day ³	Calculated ³	
Oil and Grease	mg/L	Grab	Monthly
	lbs/day ³	Calculated ³	

¹ All parameters shall be analyzed by the methods specified in 40 CFR section 136.3.

² Flow shall be monitored prior to combining with any other effluent stream (including other low volume wastes).

³ lbs/day shall be calculated by the discharger for each monitoring event using the following formula:

$$\text{lbs/day} = 0.00834 * \text{effluent concentration limit (ug/L)} * Q$$

where: Q = flow rate, million gallons per day (MGD)

Effluent monitoring requirements for Internal Discharge Points I-002 and I-004 are listed in *Table 22. Effluent Monitoring Requirements for Internal Discharge Points of Cooling Tower Blowdown.*

Table 22. Effluent Monitoring Requirements for Internal Discharge Points of Cooling Tower Blowdown.

Constituent ¹	Units	Sample Type	Frequency
Flow ²	MGD	Continuous	Continuous
pH	Units	Grab/Continuous	Monthly
Free Available Chlorine	µg/L	Grab/Continuous	Monthly
	lbs/day ³	Calculated ³	
Chromium, total ⁴	mg/L	24-hr composite	Semi-annual
	lbs/day ³	Calculated ³	
Zinc, total ⁴	ml/L	Grab	Semi-annual
Remaining Priority Pollutants ⁴	µg/L	24-hr composite	Annual

¹ All parameters shall be analyzed by the methods specified in 40 CFR section 136.3.

² Flow shall be monitored prior to combining with effluent from HARRF and after combining with effluent from HARRF.

³ lbs/day shall be calculated by the discharger for each monitoring event using the following formula:

$$\text{lbs/day} = 0.00834 * \text{effluent concentration limit (ug/L)} * Q$$

where: Q = flow rate, million gallons per day (MGD)

⁴ The Discharger shall monitor for only the priority pollutants listed in Attachment H of Order No. R9-2005-0139 that are used for cooling tower maintenance.

Effluent monitoring requirements for temperature, pH, oil and grease, turbidity, settleable solids, suspended solids, and chronic toxicity have been established to evaluate compliance with the final effluent limitations for the total combined flow from IBCS in Order No. R9-2005-0139 and summarized in Section IV.D of this Fact Sheet.

The IBCS will collect chlorinated wastewaters from various industrial users. Effluent monitoring for total residual chlorine has been established to evaluate the need for future WQBELs for residual chlorine effluent limitations and ensure the protection of water quality and aquatic life.

The Discharger shall conduct effluent monitoring for pH, oil and grease, turbidity, settleable solids, suspended solids, total chlorine residual, and chronic toxicity prior to the combined total IBCS effluent combining with any other flow (e.g., HARRF effluent).

The IBCS effluent is not expected to meet Thermal Plan requirements prior to commingling with HARRF effluent. The City of Escondido, being owner and operator of both the HARRF and IBCS facilities, has indicated that temperature limitations can be met by blending HARRF effluent and IBCS effluent. The Discharger shall conduct effluent monitoring for temperature after the IBCS effluent and HARRF effluent combine, and prior to the addition of San Elijo WRF effluent or any other waste stream, for the purpose of determining compliance with the temperature effluent limitation.

Priority pollutant monitoring has been established to determine if the total combined IBCS effluent has reasonable potential to discharge priority pollutants exceeding water quality objectives listed in Table B of the Ocean Plan and evaluate the need for additional WQBELs.

Effluent monitoring requirements for the total combined flow from the IBCS applicable to the Discharger are listed in *Table 23. Effluent Monitoring Requirements for Combined Discharge Point C-001*.

Table 23. Effluent Monitoring Requirements for Combined Discharge Point C-001.

Constituent ¹	Units	Sample Type	Frequency
Flow ²	MGD	Continuous	Continuous
pH	Units	Grab/Continuous	Weekly
Residual Chlorine	µg/L	Grab/Continuous	Weekly
	lbs/day ³	Calculated ³	
Temperature	°F	Grab/Continuous	Weekly
Total Suspended Solids	mg/L	24-hr composite	Monthly
	lbs/day ³	Calculated ³	
Settleable Solids	ml/L	Grab	Monthly
Oil and Grease	mg/L	Grab	Monthly
	lbs/day ³	Calculated ³	

Constituent ¹	Units	Sample Type	Frequency
Turbidity	NTU	24-hr composite	Monthly
Chronic Toxicity	TUc	24-hr composite	Annually
Priority Pollutants ⁴	µg/L	24-hr composite	⁵

¹ All parameters shall be analyzed by the methods specified in 40 CFR section 136.3.

² Flow shall be monitored prior to combining with effluent from HARRF and after combining with effluent from HARRF.

³ lbs/day shall be calculated by the discharger for each monitoring event using the following formula:

$$\text{lbs/day} = 0.00834 * \text{effluent concentration limit (ug/L)} * Q$$

where: Q = flow rate, million gallons per day (MGD)

⁴ The Discharger shall monitor for the priority pollutants as specified in Attachment H of Order No. R9-2005-0139.

⁵ Priority Pollutant monitoring shall be conducted quarterly during the first year of facility operation, and one more time approximately one year prior to the expiration date of the permit. Additional priority pollutant monitoring requirements are summarized in Section VII.B.2.b of this Fact Sheet.

All monitoring procedures (including whole effluent toxicity testing procedures) must comply with monitoring procedures specified in Appendix III of the Ocean Plan and 40 CFR section 136.3.

The MRP should be reviewed for greater detail regarding specific monitoring requirements.

B. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity testing shall be conducted by the methods specified in Section IV.C.6 of this Fact Sheet and Section IV of the MRP.

C. Receiving Water Monitoring

In order to determine compliance with the Thermal Plan and the thermal effluent limitation established in the Order, the City shall conduct weekly monitoring of the receiving water for temperature, as specified in Section V of the MRP.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which in accordance with 40 CFR 122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order.

B. Special Provisions

1. Re-Opener Provisions

- a. This Order may be re-opened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge by this Regional Water Board.
- b. This Order may be re-opened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.
- c. This Order may be re-opened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new minimum level (ML).
- d. This Order may be re-opened and modified to revise effluent limitations because of Basin Plan Amendments, such as an update of an objective or the adoption of a Total Maximum Daily Load (TMDL).
- e. This Order may be re-opened upon submission of adequate information by the Discharger, as determined by this Regional Water Board, to provide for dilution credits or a mixing zone, as may be appropriate.
- f. This Order may also be re-opened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order and permit, and endangerment to human health or the environment resulting from the permitted activity.

2. Special Studies and Additional Monitoring Requirements

Core monitoring may include intake monitoring, effluent monitoring, receiving water monitoring, and groundwater monitoring. This Order includes core monitoring for effluent. In addition to core monitoring requirements, the Discharger may be required to conduct additional monitoring. Special studies are intended to be short-term and designed to address specific research or management issues that are not addressed by the routine core monitoring program. The Discharger shall implement special studies as directed by this Regional Water Board.

- a. The Discharger shall participate and coordinate with state and local agencies and other dischargers in the San Diego Region in development and implementation of a regional monitoring program for the Pacific Ocean as directed by this Regional Water Board. The intent of a regional monitoring program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the region. During a coordinated sampling effort, the Discharger's sampling and analytical effort may be reallocated to provide a regional assessment of the impact of discharges to the receiving water.

- b. This Regional Water Board is requiring, as part of the MRP, that the Discharger conduct effluent monitoring for the priority pollutants as specified in Attachment H.

This monitoring shall be conducted at the following locations:

- 1) Total Combined IBCS Effluent Discharge Point C-001. Monitoring of the IBCS effluent shall be conducted prior to the IBCS effluent commingling with any other waste streams (prior to discharge into the ELO).
- 2) Receiving water (for pH only). Samples for pH shall be collected at offshore water quality monitoring stations described in Attachment E to Order No. R9-2005-0101, NPDES No. CA0107981. Sampling shall occur at frequencies that are concurrent with the monitoring protocol outlined in Attachment E to Order No. R9-2005-0101; NPDES No. CA0107981. The results shall be used to determine compliance with the Thermal Plan for the discharge from the IBCS.

The Discharger shall conduct two priority pollutant monitoring studies as specified in Attachment H. The first monitoring study shall be conducted quarterly for the first year of facility operation (four monitoring events). The results of the quarterly priority pollutant monitoring shall be submitted to this Regional Water Board within 3 months of completing the fourth monitoring event, and no later than November 1, 2006. The second priority pollutant monitoring study requires the Discharger to conduct priority pollutant monitoring approximately one year prior to the permit expiration date as established in Section VI.A of the MRP (Attachment E). The final priority pollutant monitoring event shall be conducted between March 1, 2009 and April 31, 2009 and include Phase II effluent if possible. The results of the second priority pollutant monitoring study shall be submitted at least 180 days prior to the expiration date of this Order and shall be submitted with the Report of Waste Discharge.

3. Best Management Practices and Pollution Prevention

The Discharger must establish an industrial users evaluation and regulatory program which will establish discharge regulations, discharge prohibitions, and requirements under which industrial dischargers will be allowed to discharge to the IBCS.

VIII. PUBLIC PARTICIPATION

This Regional Water Board is considering the issuance of waste discharge requirements (WDR) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for City of Escondido's Industrial Brine Collection System. This Regional Water Board has developed tentative WDRs. This Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

This Regional Water Board has notified the Discharger and interested agencies and persons of its intent to adopt waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through publication in the North County Times on August 8, 2005 and by letter mailed to interested parties on August 8, 2005.

B. Written Comments

Interested persons are invited to submit written comments regarding the WDR. Comments should be submitted either in person or by mail, during business hours, to:

John H. Robertus, Executive Officer
Attn: POTW Compliance Unit
Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

To ensure that this Regional Water Board has the opportunity to fully consider written material, comments regarding Order No. R9-2005-0139 should be received in the Regional Water Board's office no later than 5:00 p.m. on August 31, 2005. Written material submitted after 5:00 p.m. on September 7, 2005 will not be provided to the Regional Water Board members and will not be considered by this Regional Water Board. Oral comments will be received at the hearing on June 8, 2005.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: September 14, 2005
Time: 9:00 a.m.
Location: Regional Water Quality Control Board
Regional Water Board Meeting Room
9174 Sky Park Court, Suite 100
San Diego, California 92123

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and Order. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is **<http://www.waterboards.ca.gov/sandiego>** where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

For additional information, interested persons may write the following address or contact Bryan Ott of the Regional Water Board by e-mail at BOtt@waterboards.ca.gov or by phone at (858) 637-5589.

Regional Water Quality Control Board, San Diego Region
Attn: Executive Officer
9174 Sky Park Court, Suite 100
San Diego, California 92123

Copies of the applications, NPDES waste discharge requirements, and other documents (other than those that the Executive Officer maintains as confidential) are available at the Regional Water Board office for inspections and copying according to the following schedule (excluding holidays):

Monday and Thursday:	1:30 p.m. to 4:30 p.m.
Tuesday and Wednesday:	8:30 a.m. to 11:30 a.m. 1:30 p.m. to 4:30 p.m.
Friday:	8:30 a.m. to 11:30 a.m.

An electronic copy of the Fact Sheet and Order can be accessed on the Regional Water Board website: <http://www.waterboards.ca.gov/sandiego>.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact this Regional Water Board, reference this Facility, and provide a name, address, and phone number.